

BMP Annual Maintenance Certification Protocol

for

All Regulated Stormwater BMPs in the City of Durham

City of Durham
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Background

The proper design and construction of an engineered stormwater BMP (Best Management Practice) is essential to its ability to adequately remove pollutants from stormwater runoff. Equally important is the proper operation and upkeep of such a facility. Without proper maintenance, a BMP will not function as it is intended and, in some instances, may cause a host of problems from dangers to the public to nuisance odors to reduced property values.

Like many jurisdictions in North Carolina, the City of Durham Stormwater Services Division (SSD) requires annual inspections (e.g., maintenance certifications) of all BMPs in operation within the City limits. These annual maintenance certifications are required under the recorded agreement executed by the owner and the City during the construction drawing and permitting process for each Stormwater BMP. Noncompliance with the agreement may subject the owner to specific enforcement actions by the City as outlined in the agreement and in the City's Code of Ordinances. The purpose of this document is to specify the annual maintenance certification requirements and procedures that are to be followed by all those who own and operate BMPs in the City of Durham.

Certification Procedures: A Step-by-Step Process for BMP Owners

Provided below is a summary of recommended steps that you, as a BMP owner in the City of Durham, should follow to have the BMP you own certified in the most cost-effective manner:

1. Determine the annual anniversary month (AAM) for your BMP. Much like the month each year when the safety inspection for your car is due, the AAM is the month each year during which the BMP you own (or are responsible for) is to be certified by a qualified professional. The AAM can be found near the top of the first page of the BMP Annual Maintenance Certification Letter (Letter) that was sent to you previously. If you are unsure as to what the AAM is for your BMP, please contact the City of Durham Stormwater Services Division at 919/560-4326 for assistance.
2. Use the "Protocol Reference Sheet," which was attached to the aforementioned Letter, to help you access important information about the BMP you own, such as, where to find a copy of the recorded maintenance agreement for your BMP, how to download a copy of the City's "Owner's Guide for the Operation and Maintenance of Stormwater BMPs Constructed in the City of Durham," and how to access sample

BMP certification inspection forms. The “Protocol Reference Sheet” can be viewed or downloaded from the City’s website at

http://www.durhamnc.gov/departments/works/stormwater_bmp.cfm.

3. Contact and interview one or more qualified professionals who have been certified by the City of Durham to provide annual maintenance certifications in Durham. Stormwater Services Division maintains a comprehensive list of all professionals certified as BMP Maintenance Certifiers (BMCs) in the City of Durham.
4. Once you have selected a qualified BMC, that individual will be able to walk you through the technical steps of having your BMP inspected and, eventually, certified. BMCs certified in the City of Durham are not just familiar with the operational and maintenance requirements for a wide variety of stormwater BMPs, but are also very familiar with the BMP certification requirements unique to the City of Durham. It is recommended that you work closely with the BMC working for you as this will enable them to best serve your needs while meeting the City’s certification requirements as painlessly as possible.

Certification Package: The Elements of a Complete BMP Certification Package

Provided below are the essential elements of a complete BMP Annual Maintenance Certification Package. It should be noted that two copies of the certification package are required to be submitted by a BMP Maintenance Certifier (BMC) to the City of Durham on or before the last day of the Annual Anniversary Month (AAM).

1. A sealed “BMP Annual Maintenance Certification” form (This form can down loaded from our website at http://www.durhamnc.gov/departments/works/stormwater_bmp.cfm);
2. A signed and sealed “BMP Inspection Report;”
3. A “Photographic Journal” of the BMP inspection;
4. An “Owner’s Financial Disclosure” for the operation, inspection, and maintenance of the BMP; and
5. An up-to-date, signed and sealed “BMP Operation and Maintenance Manual.”

Note: If a Conditional Certification or an Engineering Modification Report is to be submitted, items in addition to those mentioned above will be required. For a discussion of these additional items, please refer to the “Definitions, Requirements, and Procedural Elements” section below.

Definitions, Requirements, and Procedural Elements

Annual Anniversary Month: The Annual Anniversary Month (AAM) of a BMP is the month the construction of the BMP was deemed complete by the City of Durham. For example, if a BMP was deemed complete on April 11, 2004, the AAM is April, and the BMP Annual Maintenance Certification will be due by April 30 each year. It should be noted, though, that there are a number of older BMP facilities in Durham that have been assigned an AAM even though construction “completeness” has not been verified.

BMP (Structural): A “structural” BMP (Best Management Practice) facility is a stormwater treatment device that treats and manages stormwater prior to its discharge into a downstream

drainage system. BMPs take on a variety of different forms from wet ponds to constructed wetlands to underground sand filters to rainwater harvesting devices.

The initial BMP inspection report can have one of three outcomes listed below:

- 1. BMP Annual Maintenance Certification:** A BMP Annual Maintenance Certification, herein referred to as “Certification,” is a sealed (e.g., stamped, signed, and dated) statement provided by a Qualified Professional that certifies that a particular BMP is functioning properly, that all components are in good working condition, and that all safety aspects of the facility are in compliance with the operational requirements of the City of Durham. The BMP Annual Maintenance Certification must contain the following:

- Two original sealed BMP Annual Maintenance Certification Forms (This form can downloaded from our website at http://www.durhamnc.gov/departments/works/stormwater_bmp.cfm);
- Two copies of sealed Inspection Report;
- Two copies of Photographic Journal of the BMP inspection;
- Two copies of Owner’s Financial Disclosure; and
- Two copies (each of both hard copy and in word format on CD) of a sealed up-to-date Operation and Maintenance Manual that provides specific guidance regarding the operation and maintenance of the facility for the next year.

A Certification is required annually and is due each year by the last day of the Annual Anniversary Month for the BMP. If an Owner/Permittee fails to provide a Certification by the last day of the Annual Anniversary Month, that Owner/Permittee may be deemed a violator of the City’s illicit discharge ordinance and may be subject to the penalties and fines of Chapter 70, Article V of the City of Durham Code of Ordinances.

- 2. Conditional Certification:** A Conditional Certification is similar to a Certification except that it is conditioned on the completion of specific remedial repair items to be completed by the BMP Owner/Permittee in accordance with a sealed Implementation Schedule (not to exceed 90-days from the date of the Conditional Certification) that has been approved by the City. The Conditional Certification must contain the following:

- Two original sealed Conditional Certification Forms (This form can downloaded from our website at http://www.durhamnc.gov/departments/works/stormwater_bmp.cfm);
- Two copies of sealed Inspection Report;
- Two copies of a sealed list of remedial items that must be completed by the Owner/Permittee to meet the standards for formal certification;
- Two copies of a sealed Implementation Schedule, submitted for City of Durham review and approval;
- Two copies of Photographic Journal of the BMP inspection; and
- Two copies of Owner’s Financial Disclosure.

Once all remedial items have been completed, a Certification (with all items in Number 1 BMP Annual Maintenance Certification) will be required to be submitted. If an

Owner/Permittee fails to provide a Conditional Certification by the last day of the Annual Anniversary Month or fails to provide a Certification within the time frame specified in the Implementation Schedule that Owner/Permittee may be deemed a violator of the City's illicit discharge ordinance and may be subject to the penalties and fines of Chapter 70, Article V of the City of Durham Code of Ordinances.

- 3. Engineering Modification Report:** An Engineering Modification Report, herein referred to as an "EMR," is an inspection report of a facility that was either not completed, or was "completed" in a manner that significantly differs (negatively) from that detailed in the original design plans, or is in such a state of disrepair or functional failure that a Certification cannot be provided reasonably within the 90-day threshold specified in the Conditional Certification definition above. An EMR must include the following:
- Two original sealed Engineering Modification Report (EMR) Submittal Forms (This form can be downloaded from our website at http://www.durhamnc.gov/departments/works/stormwater_bmp.cfm);
 - Two copies of the sealed Inspection Report;
 - Two copies of a Photographic Journal;
 - Two copies of a sealed (by an NCPE only) Engineering Modification Plan (e.g., a scaled drawing with any required details), to be reviewed and approved by SSD;
 - Two copies of a sealed Implementation Schedule, also to be reviewed and approved by SSD; and
 - Two copies of the Owner's Financial Disclosure.

In no instance will the length of an EMP Implementation Schedule exceed two-years from the date of the "first" EMR. Until the BMP obtains Certification, an EMR will be required every 90-days to monitor and report on the progress of the Implementation Schedule. Each EMR will include a Photographic Journal, an updated Implementation Schedule, to be reviewed and approved by SSD, any proposed revisions to the EMP, also to be reviewed and approved by SSD, and an updated Owner's Financial Disclosure. It should be noted that only a registered North Carolina Professional Engineer (NCPE) will be permitted to submit an EMP in the City of Durham. Upon completion of the work outlined in the Engineering Modification Plan and Implementation Schedule, a Certification (including all items under Number 1 Annual BMP Maintenance Certification are required to be submitted. In addition, the eventual Certification of such a "modified" BMP may, at the discretion of SSD, require the inclusion of an as-built of the modified BMP in the Certification Package. Consultation with SSD regarding the extent and detail required for such an as-built is required. If an Owner/Permittee fails to provide an EMR by the last day of the Annual Anniversary Month, or fails to provide an EMR every 3-months after the first EMR (until the BMP has been Certified), or fails to provide a Certification, within the time frame specified in the most recently approved Implementation Schedule, that Owner/Permittee may be deemed a violator of the City's illicit discharge ordinance and may be subject to the penalties and fines of Chapter 70, Article V of the City of Durham Code of Ordinances.

Definitions of items in above submittal packages:

Engineering Modification Plan: An Engineering Modification Plan, herein referred to as and "EMP," is an engineering plan for the construction, reconstruction, significant modification, or

rehabilitation of a BMP that was either not completed, or was “completed” in a manner that significantly differs (negatively) from that detailed in the original design plans, or is in such a state of disrepair or functional failure that a Certification cannot be provided reasonably within the 90-day threshold specified in the Conditional Certification definition above. The EMP is submitted as part of an Engineering Modification Report submittal package. It should be noted that an EMP is a scaled drawing that details the construction, reconstruction, or modification items required to bring a BMP facility into reasonable compliance with the original construction drawings and that only a registered NCPE will be permitted to submit an EMP in the City of Durham. It is recommended that an NCPE preparing an EMP consult the City’s Reference Guide for development for general requirements concerning construction drawing submittals in the City of Durham. Since an EMP submittal will be different from a new development construction drawing submittal, consultation with SSD regarding the extent and detail required for an EMP is required. The eventual Certification of such a “modified” BMP may, at the discretion of SSD, require the inclusion of an as-built of the modified BMP. Consultation with SSD regarding the extent and detail required for such an as-built is required.

Implementation Schedule: An Implementation Schedule is a sealed schedule, to be reviewed and approved by SSD, which specifically details the timeline a BMP Owner/Permittee is to follow in completing the corrective items required at his/her/their BMP. It is submitted as part of a Conditional Certification or an Engineering Modification Report.

Inspection Report: An Inspection Report is a report or checklist, sealed by a Qualified Professional, which documents specifically the professional’s visual and mechanical inspection of the functional elements and safety aspects of a particular BMP. An Inspection Report is to be attached to any Certification, Conditional Certification, or EMR submitted to SSD. SSD has prepared generic inspection reporting forms that can be used when inspecting BMPs in the City of Durham. These forms can be obtained from SSD directly or can be downloaded from the City’s webpage. Other inspection reporting forms can be used if approved by SSD.

Operation and Maintenance Manual: An Operation and Maintenance Manual, herein referred to as “O&M Manual,” is a set of specific guidelines, sealed by a Qualified Professional, to be followed by a BMP Owner/Permittee with regards to the operation and maintenance items to be conducted during the year following each annual Certification. If there is no O&M Manual of record, a new manual shall be prepared. If there is an existing O&M Manual, the manual shall be updated and modified as appropriate for the activities to be accomplished and/or monitored in the upcoming year. In all cases, the manual shall be provided to SSD in hard copy form and in a *Microsoft Word* format on a CD.

Owner’s Financial Disclosure: An Owner’s Financial Disclosure, herein referred to as “OFD,” is a copy of the Owner’s (i.e., Permittee’s, Responsible Party’s, etc.) budget, expenditures, and accounts for the operation and maintenance of a stormwater BMP during the previous year. It should be noted that an OFD is for the operation, inspection, and maintenance of the BMP only. A copy of the OFD is to be attached to a Certification, Conditional Certification, or Engineering Modification Report. It should be noted that the detailed contents of an OFD shall be considered confidential information.

Other Definitions:

Owner/Permittee/Responsible Party: In accordance with the City’s stormwater ordinance, the Owner of the property on which a BMP is located is required to enter into a Stormwater Facility

Operation and Maintenance Permit Agreement, herein referred to as “Agreement,” with the City of Durham regarding the perpetual ownership, operation, and maintenance of the BMP. The Owner of the property is to be the Permittee or Responsible Party on the Agreement. The Permittee on the Agreement is responsible for all aspects of the inspection, operation, maintenance, and liability of the BMP on his/her/their property.

“Owner’s Maintenance Guide for Stormwater BMPs Constructed in the City of Durham”:

SSD has prepared an “Owner’s Maintenance Guide for Stormwater BMPs Constructed in the City of Durham,” herein referred to as “Maintenance Guide,” that can be used by BMP Owners/Permittees, PEs, RLAs, and other individuals to aid in the maintenance of BMPs. The purposes of the Maintenance Guide are three-fold: (1) To acquaint BMP Owners/Permittees with the essential functional elements of the BMP on their property; (2) To help BMP Owners/Permittees identify the maintenance requirements for the BMP on their property; and (3) To help BMP Owners/Permittees establish and implement an effective BMP maintenance and inspection program for the BMP on their property. Each section of the Maintenance Guide addresses the functional elements and typical maintenance requirements for each type of structural BMP used in the City of Durham. It should be noted that this Maintenance Guide is intended to provide a general overview of the common maintenance items that will or may arise in the course of operating a particular type of BMP. While this Maintenance Guide can be used as a basis for the preparation of an O&M Manual for an actual constructed BMP, it should not be confused with an actual O&M Manual for such a BMP. A copy of the Maintenance Guide can be obtained from SSD directly or can be downloaded from http://www.durhamnc.gov/departments/works/pdf/doc11_maint_guide.pdf.

Qualified Professional: A Qualified Professional is either a registered North Carolina Professional Engineer (PE) or a North Carolina Registered Landscape Architect (RLA) who has been certified as a “BMP Maintenance Certifier,” or “BMC,” by the City of Durham. Please refer to the “BMP Maintenance Certifier (BMC) Program” document for the specifics regarding the BMC program.

Stormwater Facility Operation and Maintenance Permit Agreement/Stormwater Facility Agreement and Covenants: In accordance with the City’s stormwater ordinance, the Owner of the property on which a BMP is located is required to enter into a Stormwater Facility Operation and Maintenance Permit Agreement/Stormwater Facility Agreement and Covenants, herein referred to as “Agreement,” with the City of Durham regarding the perpetual ownership, construction, operation, inspection, and maintenance of the BMP. The Owner is the Permittee and Responsible Party on the Agreement. The Owner/Permittee/Responsible Party on the Agreement is responsible for all aspects of the construction, operation, inspection, and maintenance of the BMP on his/her/their property and assumes all liability for such activities.

Protocol Application

For all Owners/Permittees of regulated BMPs in the City of Durham, compliance with this protocol is mandatory.

Protocol Implementation

This protocol will go into effect at 12:01 a.m., on August 1, 2009, and will apply to all regulated BMPs in the City of Durham.